

Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) **EP 1 010 629 A1**

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
21.06.2000 Bulletin 2000/25

(51) Int. Cl.⁷: **B65D 30/08, B65D 33/16**

(21) Application number: **98310387.0**

(22) Date of filing: **17.12.1998**

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE**
Designated Extension States:
AL LT LV MK RO SI

(72) Inventor: **Ho, Claudia
Si Chih, Taipei Hsien (TW)**

(71) Applicant: **Bridge Elite Inc.
Si Chih, Taipei Hsien (TW)**

(74) Representative:
**Copp, David Christopher et al
Dummett Copp,
25 The Square,
Martlesham Heath
Ipswich, Suffolk IP5 3SL (GB)**

(54) **Stretchable bag**

(57) A stretchable bag includes an enclosed bag body (1) made of a bag fabric. The bag body (1) has an opening (2) at one place thereof. The bag fabric includes an elastic layer (11) and a surface layer (12) adhered thereto. The elastic layer (11) is preferably formed from foamed polybutylene gum or styrene or butadiene gum. The surface layer (12) being preferably formed a fabric of nylon yarns or polyester yarns. The bag body (1) has an elasticity that enables the opening (2) to be stretched open to facilitate placement of articles into the bag body (1) and to contract thereafter to ensure that the contents of the bag body (1) do not fall out. At least one side of the bag fabric is provided with an ornamental layer (14) to enhance visual effects.

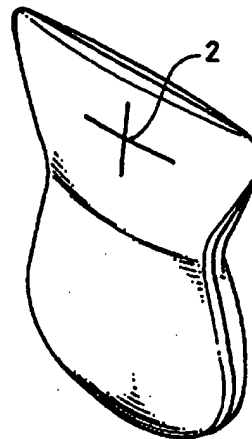


FIG. 2

EP 1 010 629 A1

Description

BACKGROUND OF THE INVENTION

(a) Field of the Invention:

[0001] The present invention relates generally to a stretchable bag, more particularly to a stretchable bag adapted for receiving articles and having an opening that allows opening or closure thereof.

(b) Description of the Prior Art:

[0002] People may carry with them sundry articles when going out. And how to store the various small articles in a bag is a problem. However, as conventional bags have their particular functions and are made of materials, such as fiber or leather (genuine or imitation), that do not allow stretching, their storage capacity is very limited.

[0003] Small items, such as keys and coins, that are frequently used are inconvenient to find if they are just put in the pocket or in a handbag, it is desirable to have a stretchable bag to keep them in a neat manner.

SUMMARY OF THE INVENTION

[0004] Therefore, a primary object of the present invention is to provide a stretchable bag that is compact in appearance but can be stretched to hold a number of articles, and that has an opening that can be stretched to allow placement of articles and that can contract thereafter to prevent the articles from falling out.

[0005] According to the present invention, a stretchable bag includes an enclosed bag body made of a bag fabric. The bag body has an opening at one place thereof. The bag fabric includes an elastic layer and a surface layer adhered thereto. The elastic layer is preferably formed from foamed polybutylene gum or styrene or butadiene gum. The surface layer being preferably formed a fabric of nylon yarns or polyester yarns. The bag body has an elasticity that enables the opening to be stretched open to facilitate placement of articles into the bag body and to contract thereafter to ensure that the contents of the bag body do not fall out. At least one side of the bag fabric is provided with an ornamental layer to enhance visual effects.

BRIEF DESCRIPTION OF THE DRAWINGS

[0006] The foregoing and other features and advantages of the present invention will be more clearly understood from the following detailed description and the accompanying drawings, in which,

Fig. 1 is a front elevation of a first preferred embodiment of the present invention;

Fig. 2 is a rear elevation of the first preferred embodiment;

Fig. 3 is a sectional view of the first preferred embodiment;

Fig. 4 is a perspective view of a second preferred embodiment; and

Fig. 5 is a perspective view of a third preferred embodiment.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0007] As shown in Figs. 1 to 3, a stretchable bag according to the present invention includes an enclosed bag body 1 formed by a bag fabric sewn to define an enclosed interior space for receiving articles, the bag body 1 having an opening 2 formed in a suitable position.

[0008] As mentioned above, conventional bags are generally made of fiber or leather (genuine or imitation) materials. The interior receiving space is not elastic due to the bag material and the size of which is limited to the space enclosed by the bag. In the present invention, the bag fabric 1 includes an elastic layer 11, a surface layer 12 adhered to an upper side of the elastic layer 11, and a bottom lining 13 attached to a lower side of the elastic layer 11.

[0009] The elastic layer 11 is formed from a foam material having stretching elasticity. Experiments show that foamed polybutylene gum or foamed styrene or butadiene gum is preferred.

[0010] The surface layer 12 and the bottom lining 13 are fibrous fabrics that match the elastic layer 11 to achieve elastic effects. Hence, they are preferably formed from nylon cloth or polyester cloth woven from nylon yarns or polyester yarns.

[0011] The surface layer 12 and the bottom lining 13 are adhered to the elastic layer 11 in a conventional way. For instance, an adhesive or glue may be applied and roller pressing may be utilized to achieve firm attachment.

[0012] The opening 2 on one side of the bag body 1 may be a slit that is linear or that has the shape of a cross, star, circle, etc. In the first preferred embodiment of the present invention, the opening 2 is cross-shaped. Certainly, the opening 2 may also be partially hollowed out.

[0013] Furthermore, in order to enhance the visual effects, one side of the bag of the present invention may be provided with an ornamental layer 14. The ornamental layer 14 may be formed by adhering stickers or using transfer printing, printing, or other conventional methods. The shape of the bag can further be dictated by the shape of the decoration on the ornamental layer 14. In the first preferred embodiment, the bag is in the shape

of a hippopotamus. Certainly, the bag can have any desired ornamental shape.

[0014] Referring to Fig. 4, which shows the second preferred embodiment of the present invention, the present invention is adapted for use on wallets. In this embodiment, the bag is additionally provided with a closure layer 4 at the end opposite to the opening 2. One end of the closure 4 is provided with a closing device 3. In this way, the bag of the present invention confines two receiving spaces for receiving articles. As for the ornamental layer 14, it can be provided on an outer surface of the closure layer 4. The closing device 3 may be a conventional zipper or hook-and-loop tapes or other equivalent means.

[0015] In practice, the present invention may have various changes. For instances, the opening 2 and the ornamental layer 14 can be formed on the same surface or opposite surfaces of the bag. When they are formed on the same surface, the opening 2 is disposed at a specific portion of the ornament on the ornamental layer 14, for instance, at the mouth portion of an animal ornament, to achieve a funny visual effect. Conversely, when they are disposed on opposite surfaces, the design of the ornament can be kept intact.

[0016] Reference is made to Fig. 5, which shows the third preferred embodiment of the present invention. This embodiment is adapted for use in a stationery bag, such as a pencil bag. In this embodiment, the closure device 3 is provided on the opening 2. Therefore, in use, the closure device 3 allows or doses access to the interior of the bag for placement or removal of articles. Through actual practice, the bag of the present invention has a tensile strength at least over 8kg/cm, and a stretchability as high as over 500%. Therefore, the fabric bag 1 can have a larger receiving capacity in use.

[0017] As the bag body 1 of the present invention has excellent elasticity, the opening 2 can be very small in size. The opening 2 can be stretched to allow easy access to the interior of the fabric bag 1. After placement of articles, the opening 2 will resume its original size to prevent the contents of the bag from falling out. Furthermore, the bag of the present invention is resistant to water, light in weight, resistant to stretching, and durable. In addition, the present invention is inexpensive to manufacture.

[0018] Although the present invention has been illustrated and described with reference to the preferred embodiment thereof, it should be understood that it is in no way limited to the details of such embodiment but is capable of numerous modifications within the scope of the appended claims.

Claims

1. A stretchable bag, comprising an enclosed bag body formed by a bag fabric, said bag body having an opening at one place thereof to allow access to an interior receiving space, said bag fabric includ-

ing an elastic layer, a surface layer adhered to said elastic layer, said elastic layer being preferably formed from foamed polybutylene gum or styrene or butadiene gum, said surface layer being preferably formed a fabric of nylon yarns or polyester yarns, whereby said bag body has an elasticity that enables said opening to be stretched open to facilitate placement of articles into said bag body and to contract thereafter to ensure that the contents of said bag body do not fall out.

2. The stretchable bag as defined in Claim 1, wherein said opening is a slit that is linear or cross-shaped.
3. The stretchable bag as defined in Claim 1, wherein said opening is hollowed out.
4. The stretchable bag as defined in Claim 1, wherein at least one side of said bag fabric has an ornamental layer.
5. The stretchable bag as defined in Claim 4, wherein said opening and said ornamental layer are disposed on the same side of said bag body.
6. The stretchable bag as defined in Claim 1, wherein said bag body further includes a closure layer on that side where said opening is provided, with a closure device disposed at one end to form a double-layer receiving space.
7. The stretchable bag as defined in Claim 6, wherein said ornamental layer is provided on an outer side of said closure layer.
8. The stretchable bag as defined in Claim 1, wherein said closure device is provided on said opening, whereby said closure device to permit placement or removal of articles via said opening.
9. The stretchable bag as defined in Claim 6, wherein said closure device is preferably a zipper.
10. The stretchable bag as defined in Claim 8, wherein said closure device is preferably a zipper.

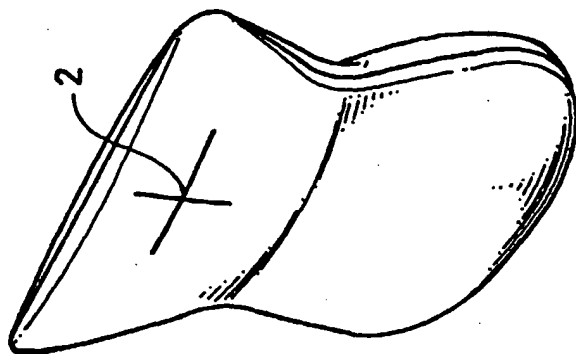


FIG. 2

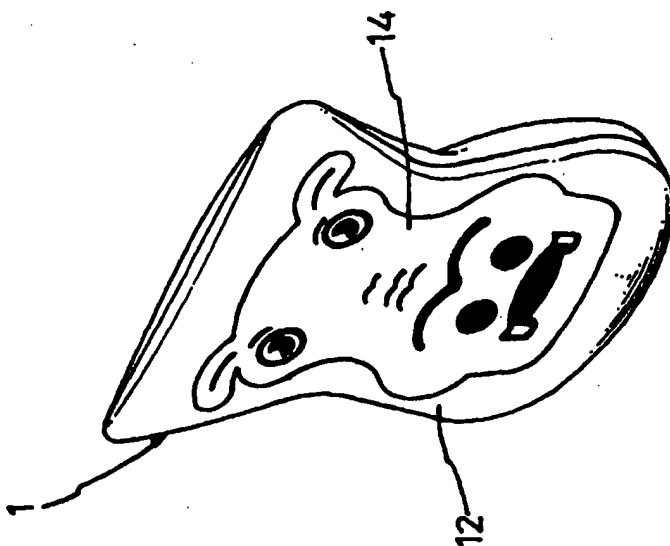


FIG. 1

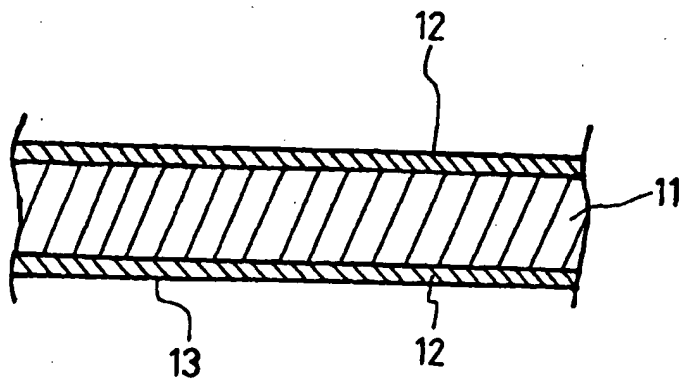


FIG. 3

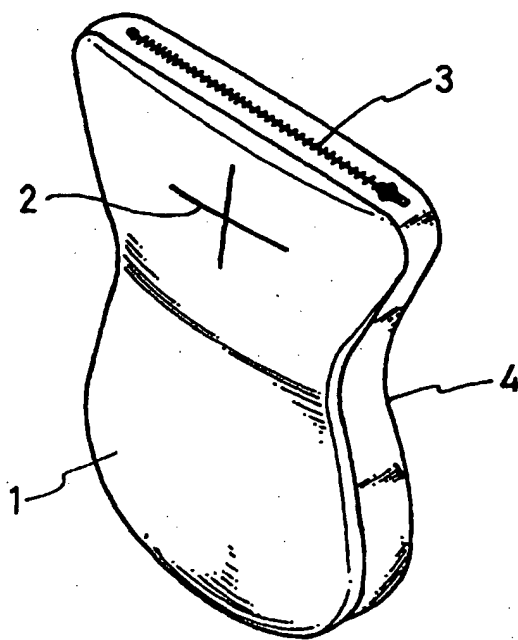


FIG. 4

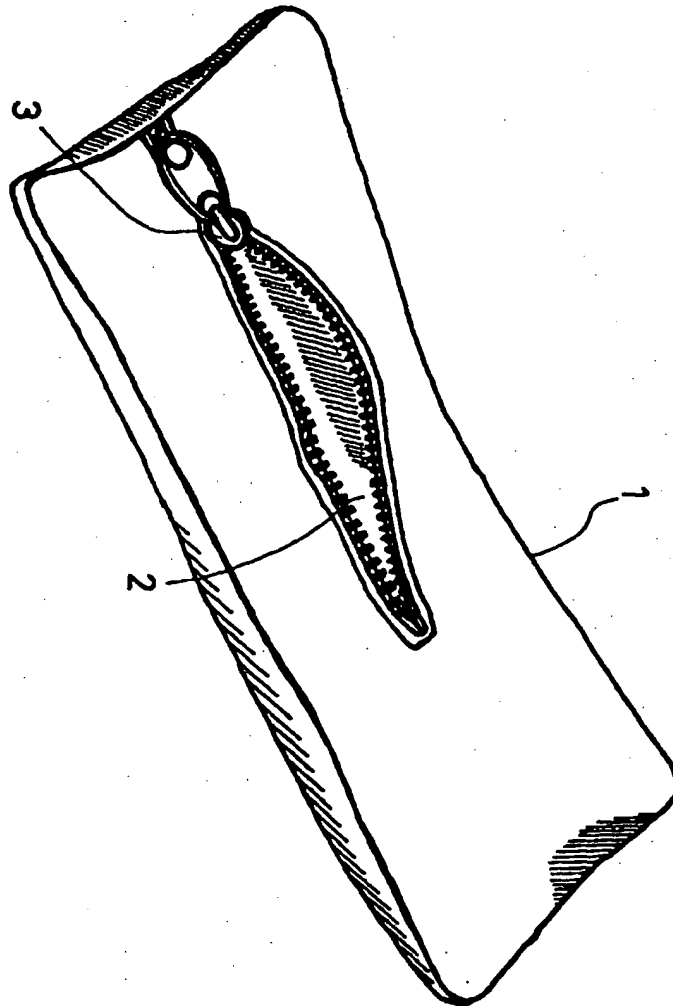


FIG. 5



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 98 31 0387

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.8)
X	GB 2 043 434 A (BLUMBERG) 8 October 1980 * page 1, left-hand column, paragraph 1 * * page 1, left-hand column, line 46 - line 49 * * page 1, right-hand column, line 113 - line 117; figures 1,2 *	1-4,8,10	B65D30/08 B65D33/16
X	WO 98 52424 A (LINDGREN TONY) 26 November 1998 * claims 1-4; figures *	1-5	
A	US 2 667 906 A (STILLER) 2 February 1954 * column 3, line 61 - line 68; figures 1-5 *	1	
A	US 1 600 633 A (HILDEBRAND) 21 September 1926		
			TECHNICAL FIELDS SEARCHED (Int.Cl.8)
			B65D A45C
The present search report has been drawn up for all claims			
Place of search BERLIN		Date of completion of the search 6 May 1999	Examiner Spettel, J
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			

EPO FORM 1503 03/82 (P4/C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 98 31 0387

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

06-05-1999

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
GB 2043434 A	08-10-1980	FR 2448875 A	12-09-1980
		DE 3004731 A	28-08-1980
		JP 55113405 A	02-09-1980
WO 9852424 A	26-11-1998	NONE	
US 2667906 A	02-02-1954	US RE24166 E	
US 1600633 A	21-09-1926	NONE	

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82